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ABSTRACT

This study explores young women's retention in sex-atypical jobs in the military and in civilian firms. It tests the hypothesis that women tend to leave stereotypically male jobs at higher rates than they leave stereotypically female jobs. The study models job turnover over a one-year period as a function of (1) the sex composition of an occupation in the national labor force; (2) the extent of potential mismatch between the employee and the job; (3) the attractiveness of the job; (4) the attractiveness of alternatives to employment; and (5) demographic and social characteristics of the individual. Tests of the hypothesis, using data from the National Longitudinal Survey of Youth Labor Market Behavior, provide no evidence that being in a nontraditional occupation increases the chances that a young woman will leave her current employer. The military sector shows a more complex relationship between occupational typicality and women's exit from the services. (KC)

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PREFACE

This project was supported by grant 820-0408 from the Urban Poverty Program, Ford Foundation. The article was derived from RAND Report R-3106-FF, *Women in Nontraditional Occupations: Choice and Turnover*. The research was conducted in RAND's Defense Manpower Research Center.

Job Stability among Young Women: A Comparison of Traditional and Nontraditional Occupations[1]

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This paper explores young women's retention in sex-atypical jobs in the military and in civilian firms. It develops hypotheses about the effects on one-year turnover of sex composition of the occupation in the national labor force. These hypotheses were drawn from several theoretical perspectives on career mobility and the effects of outgroup membership on acceptance. Tests of these hypotheses, using data from the National Longitudinal Survey of Youth Labor Market Behavior, provide no evidence that being in a nontraditional occupation increases the chances that a young woman will leave her current employer. The military sector shows a more complex relationship between occupational typicality and women's exit from the services.

This paper reports results for a project designed to explore one aspect of women's occupational distribution—young women's retention in sex-atypical jobs in the military and in civilian firms. The study has its intellectual roots in the extensive sociological and economics research on occupational, employer, and industry mobility. It is also pertinent to policies that affect the gender segregation of occupations.[2] Differences in men's and women's occupational distributions account largely for the

[1] The research reported here was supported by grant 820-0408 from the Urban Poverty Program, Ford Foundation. We would like to thank Prudence Brown, Kevin McCarthy, and Gail Zellman for helpful comments and Sally Trude for careful programming assistance.

[2] The substantial gender segregation of the American labor force is well-known. For example, to eliminate the overrepresentation of women in some occupations and their underrepresentation in others, over three-fifths of the female (or male) labor force would have to be reallocated among the occupations (Blau and Hendricks 1979).

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substantial wage differences that remain after demographic and human-capital differences between men and women have been controlled (e.g., Lloyd and Niemi 1979). Access to and retention in a larger number of occupations—especially those professional, managerial, craft, and operative occupations usually held by men—could improve women's earning ability.

Our article deals with only part of the total process through which women develop an occupational career; it offers a detailed examination of the determinants of job turnover for young women. Sørensen (1975) conceives of job mobility as being linked to the process of occupational attainment and as generated by an individual's attempts to maximize status and income. We examine the factors that affect the chances that a young woman employed at the beginning of the year will leave her employer—voluntarily or involuntarily—by the end of that year. Thus, we report the results of a job-turnover study following the tradition of Tuma (1976), Viscusi (1980), and Blau and Kahn (1981).

As its title suggests, this analysis focuses on the job and career choices of women, testing the general notion that women tend to leave stereotypically male jobs at higher rates than they leave stereotypically female jobs. We include comparable analyses of men only to provide a context for interpreting our results for women by letting us separate the effects of gender on turnover from those of occupation. We examine job turnover for women with civilian employers and enlisted women's turnover from the military. For a number of reasons, the military is an important site for studying the effects of occupational traditionality on job turnover for women. First, the services have opened all military occupations, except combat jobs, to women and have enlisted and trained them in these occupations. For example, in our data base, 34% of the women in the military, but only 3% of the women in civilian organizations, worked in occupations that at the national level were less than 10% female. Thus, the military case lets us examine the effects of more extensive gender desegregation in an organization on women's decision to stay with the employer.

Second, the military case should let us examine the effects of less initial information about atypical occupations on whether women stay or leave. In 1979 and 1980, the years we consider here, military recruiters were under some pressure to enlist women in nontraditional occupations.[3]

[3] To prevent unbalanced promotion ladders, unequal foreign-tours opportunities, and so forth, the military services try to distribute female enlistees across the typical and atypical occupations open to them. However, women fill vacancies in the traditionally female occupations first on any given day and first during the fiscal year. Women clearly queue up for jobs in traditionally female occupations in the military, strongly suggesting that they prefer those jobs, at least on the basis of the information that they

Thus, it seems likely that, on average, women who entered traditionally male military jobs had less information about their jobs—and perhaps preferred them less—than did women who selected atypical jobs more freely.

Third, military enlistment lets a woman combine a traditionally female occupation with both formal and on-the-job training, higher wages, promotion opportunities, and benefits often available only in traditionally male occupations. Thus, the military case lets us observe the effects of this particular set of occupational opportunities on decisions to stay or leave.

Our analysis includes measures of characteristics of the job, work group, and organization that may affect turnover of women in civilian firms and the military. Although we posit the same basic relationships between occupational typicality and turnover for military and civilian employees, the variables necessary to control for other determinants of turnover are not always the same for the two groups. Accordingly, we specify and estimate separate models for women and men in the military and in civilian firms. All of our analyses are separated by sex.

Comparisons of identical models for young men and women allow us to answer several important questions about women's propensities to leave civilian and military employers. Popular stereotypes, which economists refer to as "stylized facts," portray women as relatively poor risks as workers because they have higher rates of absenteeism and higher quit rates than males. Simple comparisons of these rates support this stereotype (Haber, Lamas, and Green 1983). However, although the average female worker has different characteristics from the average male worker, they also work in different types of jobs. For example, men and women tend to be highly segregated in occupations dominated by workers of one sex or the other. Three-quarters of all employed women work in occupations in which the majority of their co-workers are female, a third in occupations with 90% or more females (Waite 1981). These occupations differ from men's in more than just their sex composition. Women's occupations tend to have lower levels of physical capital, to be part of shorter or nonexistent career ladders, and to provide less on-the-job training and lower returns to worker skills than do occupations traditionally held by men (Lloyd and Niemi 1979). The different occupational distributions for women and men, combined with these characteristics of female occupations, could account for some portion of the higher quit rates of women.

One can determine in a straightforward way whether this is so by

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have at enlistment. Recruiters therefore have to "sell" some fraction of women enlistees on nontraditional occupations.

simply comparing rates of turnover of men and women in similar occupations. However, the extreme sex segregation referred to above makes this difficult. Alternatively, one can compare the effect on turnover rates of job characteristics for men and women to see whether women respond differently to the same incentives. That is the strategy that we follow here. We present our hypotheses first for women, noting differences for men where we expect them.

HYPOTHESES

As the nontraditionality of the occupation increases, the probability of turnover increases. Theory and fragmentary data suggest this hypothesis. A recent publication of the Office of the Assistant Secretary of Defense (1981) points to higher attrition rates of military women in nontraditional than in sex-typical occupations,[4] with the lowest attrition in the army, for example, in medical specialties and the highest attrition in electrical and mechanical equipment repair. An analysis of the 1976 cohort of army enlistees shows higher attrition for women in nontraditional occupations as a whole, using the traditionality definitions of the Deputy Chief of Staff for Personnel (Eaton and Nogami 1981).

Higher turnover of women in sex-atypical jobs could result from a number of processes. First, all other things being equal, women have fewer performance-relevant skills and less information about traditionally male occupations. For example, when educational attainment is held constant, women applicants to the military score significantly less well than their male counterparts on tests of electronic and mechanical knowledge. The average female recruit in the army has from 50%–75% of the strength, stamina, and muscle mass of the average male recruit (Department of the Army 1982). We created a scale of knowledge of traditionally male jobs that ranges from zero (no knowledge) to four (identification of all occupations listed) from our data. On this scale, males ages 14–17 scored 2.76 compared with 2.40 for their female counterparts. This lack of performance-relevant skills and information increases the chances of errors of choice that can be corrected by occupational—and, potentially, by organizational—exit. It also increases the chances of poor job performance, which may lead to involuntary terminations.

Second, the sociological and social-psychological literatures (e.g., Simmel 1950; Kanter 1975, 1977; Taylor and Fiske 1976; Taylor et al. 1978; Taylor et al. 1979; Taylor 1981) indicate that if a group member differs from the majority of group members in an important status characteristic

[4] Attrition refers to exit prior to the end of the tour of duty.

such as sex, race, or ethnicity, this individual encounters greater problems of acceptance and integration than does someone in a group whose members share his or her characteristics. Studies (e.g., Cook and Wilkey 1977; Greene and Wilson 1981) also indicate that women in traditionally male occupations are more apt to be employed in nonsupportive, if not actively hostile, work groups, a situation that should reduce the attractiveness of that occupation, at least as pursued in that organization (see Roos and Reskin [1984] for a detailed evaluation of this literature).

Third, women may show higher turnover rates in nontraditional occupations because they dislike characteristics of the job such as the tasks involved, the work environment or the work group, the hours, the physical strain or danger, or the responsibility. Markham et al. (1985) report that, in their sample, women show greater desire for security and interpersonal support at work than men do, although these differences are modest. One study of male and female performance in traditionally male occupations in the navy found that women were more reluctant than men to work with unpleasant co-workers or in jobs with close supervision by their immediate superior (Pope 1982). Among high school seniors, the sexes differ substantially in the characteristics of jobs that they consider important; females rate helping others and working with people as much more important than do males, who rate making money and being a leader much more highly than do females (Thompson 1974), although these preferences may have changed in the past decade. Many traditionally male jobs have more attributes that are prized by men than by women.

Finally, women with training in nontraditional occupations in the military may have greater incentives to leave the military than those trained in traditionally female jobs. The military pays the same wages to everyone at the same grade, regardless of the occupation, so, on average, the military pays those in traditionally female jobs more—and those in traditionally male jobs less—than do civilian employers. Thus, women in traditionally female jobs in the military may have wage incentives to stay in the military, whereas those in traditionally male jobs may have incentives to leave.

MODEL OF TURNOVER

To test the reasoning presented above about the effect of occupational traditionality on turnover of young women, we must specify a complete model of the process, in which we control for other characteristics of the individual and the job that might affect retention. We model job turnover over a one-year period as a function of (1) the sex typicality of the occupation in the national civilian labor force; (2) the sex composition of the

work group; (3) the extent of potential mismatch between the employee and the job; (4) the attractiveness of the job; (5) the attractiveness of alternatives to employment; and (6) the demographic and social characteristics of the individual and the characteristics of the local labor market. Insofar as it is possible, the models of job turnover for the military and civilian sectors contain the same independent variables. However, some job characteristics apply only to a single sector: a branch of the service has no civilian counterpart, no military enlistee enjoys union representation, and only those in the military have enlistment contracts. In these cases, our model contains different variables for the military and civilian sectors.

In the analyses of enlisted women we assess only the effects of branch and military occupation on exit. Because stereotypically the Marine Corps is seen as the most traditionally male of the four military branches and because women make up a substantially smaller proportion of its enlisted force (4.5% in 1981 vs. 11.5% in the air force) and its officer corps (2.9% vs. 9.2% in the air force) than of any of the other branches (Lien 1982), we predict a positive effect of a Marine Corps enlistment on turnover.

The greater the mismatch between the characteristics of the job and the characteristics of the person, the higher the probability of turnover. With job tenure controlled, we expect more job leaving among those with erroneous job expectations. This group includes individuals with less general labor-market information—that is, younger workers (Tuma 1976); those with less education, especially dropouts (Bachman, Green, and Wirtanen 1971); and those with less general knowledge about occupations. Our model includes measures of all these as controls.

A young working woman has four major alternatives: staying in her current job, changing to a new employer, leaving the labor force for school, or leaving for work in the home. Variations in the attractiveness of any of these alternatives may affect turnover. We control for attractiveness of the current job with two kinds of variables: job characteristics that presumably affect its attractiveness to the average woman, such as hourly wage or number of benefits, and respondent attitudes toward the job. The first set of variables includes the shift of the job, the commute time between home and work, the availability of specific benefits, the presence or absence of union representation, hourly wages, eventual wage payoffs (as indicated by the national female median wage in the respondent's three-digit occupation), and mobility opportunities within the firm (as indicated by the size of the firm and the number of separate establishments). Blau and Kahn (1981) predicted and found that higher hourly wages and greater median wages for females in the occupation reduced quits for black and white women. Belonging to a union reduced

quits for white women. The second set (respondent attitudes toward the job) includes the respondent's assessment of the job's significance, the number of its extrinsic rewards, its danger, and the attractiveness of her work group. It also includes a measure of her satisfaction with the job at the baseline survey year. Although these measures have intuitive appeal as determinants of job retention, few have been evaluated in models of turnover.

The third set includes measures of the attractiveness of alternatives to employment, including additional schooling (via educational aspirations) and work in the home. We measure the attractiveness of work in the home by modeling the implications of the respondent's mother's work behavior, what the respondent wants to do at age 35 (work in the labor force vs. in the home), whether the respondent thinks it appropriate for wives to work, and what benefits she thinks a working wife brings to the family. We also include measures of life-cycle transitions that may increase the attractiveness of full-time work in the home. These include whether the respondent has married or borne a child between the baseline survey year and the year in which we measure turnover. Long and Jones (1980) find that women with a birth during the period measured faced increased chances of leaving the labor force.

The next section discusses the data, variables, and methods that we use to test the hypotheses presented above.

DATA, VARIABLE DEFINITIONS, AND STRUCTURE OF THE ANALYSIS

Data

Our analysis uses data from the National Longitudinal Survey of Youth Labor Market Behavior (NLS). This survey began in 1979 with a national probability sample of those who were aged 14–21 on January 1, 1979, and living within the United States or were on active military duty outside the United States. The sample excludes those permanently institutionalized. A total of 12,686 persons completed interviews in 1979. These included an oversampling of Hispanics, blacks, those who were economically disadvantaged but nonblack and non-Hispanic, and also a separate sample of 1,280 persons on active duty in the military.

In the baseline interview year the respondents provided detailed information on their family background; schooling and training history; work history; marital and fertility status; current job's characteristics; earnings and income; attitudes toward their current job; and educational, training, occupational, marital, and parenting preferences and expectations. The respondents in the NLS were reinterviewed approximately one and two

years following the initial interview, with excellent retention of the original sample. Of those interviewed in 1979, 96% were reinterviewed in 1980, and 97% of the original sample was reinterviewed in 1981.

The NLS youth cohort constitutes the only contemporary data set with a large enough sample of women and men in the military and civilian sectors to support comparative analysis. The sample includes 457 women on active duty in 1979, plus almost 6,000 other nonmilitary women 14–21 years old. The military sample for men is larger than that for women, whereas the civilian sample is about the same size. The comparable information obtained from the military and civilian samples facilitates parallel analyses for the two sectors.

Our analysis of job turnover among young women and men uses a subset of the NLS data. We restrict our sample to those at least 16 years old in 1979 who stated that employment constituted their primary activity during the survey week; we eliminate those enrolled in high school or in college full-time at the initial interview. This allows us to examine job choices of young women and men who were making employment decisions with possible implications for their long-run career development. Approximately 1,077 young women and 1,376 young men fit our sample criteria in 1979 for the civilian-sector analysis; all of those on active military duty were included in our analysis of that sector.

This analysis examines the determinants of job turnover among young women and men over a one-year period. We begin with those employed at the initial survey in 1979. Those who no longer work for their 1979 employer at the 1980 interview receive a code of one on our measure of job turnover; those still working for that employer, a code of zero. The analysis of military turnover begins with those on active duty in one of the four branches of the military in 1979. Those no longer on active duty one year later receive a code of one on the job turnover measure; those still on active duty, a code of zero. This measure of job turnover for both the civilian and military sectors ignores job changes that take place while the person is working for the same employer because, as Felmlee (1982) argues, job changes with the same employers result from a significantly different process than do job changes between employers. We do not include changes of military occupational specialty or changes of job description that do not involve leaving the employer.

Our definition of turnover does not distinguish between voluntary and involuntary job exits. Several considerations prompt this choice. First, the reason the respondent left the job is reported by the respondent and therefore subject to bias. Respondents may report firings as quits to give a more socially acceptable response. Second, the line between firings and quits and between layoffs and quits can be quite fine. An employee whose

boss finds her work unsatisfactory may quit in anticipation of being fired or may receive warning to leave or be fired. Those facing layoff may search for another job for that reason.[5]

Military Attrition and Separation

Although the processes through which civilian employees leave their jobs are well-known, the services' personnel practices are unique and much less well-known. To put our models of turnover in the military into perspective, we will briefly discuss military enlistment, attrition, and separation.

Each person entering one of the services signs an enlistment contract that obligates him or her to remain until the end of the term of the contract. This term can range from two to six years, depending on the service, the occupational assignment, and the amount of training necessary for it. Individuals can be separated from the service at the volition of the military prior to the end of their contract—a process referred to as attrition—for inadequate work performance, abuse of drugs or alcohol, disciplinary problems, pregnancy (for women only), or single parenthood. Individuals can request a release from their enlistment contract, but they will be given this release only if the military command decides to do so. Enlisted men most often leave the services before the end of their contract (other than during training) because of substance abuse or disciplinary problems, women for pregnancy or family-related reasons. Most of those who enlist serve the entire period of their contract, although in the past women have had higher first-term attrition rates than have men (Eaton and Nogami 1981).

Variable Definitions

Table 1 presents the names of all the variables used in the model, grouped in the categories listed above, plus the coding of each variable. Table 2 presents the means and standard deviations for all these variables for the civilian and military samples. Most of the measures are straightforward and require no explanation. However, we constructed several scales that we describe in the next section. The measures SEXROLE1 and SEXROLE2 result from our factor analysis of a series of seven items measuring the respondent's attitudes about the proper roles of men and women and the consequences of the employment of a wife. The variables EX-

[5] See Stolzenberg (1983) for a summary of arguments about the wisdom of distinguishing between voluntary and involuntary terminations. See also Bartel and Borjas (1977).

TRINSIC REWARDS, JOB HAZARDS, and WORK GROUP also derive from a factor analysis of a series of nine items measuring the respondent's perceptions of the characteristics of his or her job. The other scales listed in table 1 are simple additive scales, except CONTROL, which weights each response on the internal/external locus of control scale by the strength with which it is held. Two variables, job tenure and wages, required transformation. After some exploration with various functional forms, we applied log transformations to each as the best approximation of the shape of the relationship with turnover.

We measure our central predictor variable, sex traditionality of the occupation, as the proportion female in that census three-digit occupation in 1979. Although this measure is fairly fine grained in comparison with most other measures of occupations, recent research on sex segregation within establishments and within job titles in the same establishment points to pervasive segregation; men and women rarely share the same job title in an establishment (Bielby and Baron 1984, 1986). Thus, our measure captures sex typicality in its broadest sense by measuring what is typical within the labor force as a whole. In fact, those women in traditionally male jobs in our sample may work in establishments where all the incumbents of that occupation are women. In spite of this, we argue that society as a whole will still label an occupation generally held by men as a male occupation. But the social relations on the job for women probably differ, depending on whether the others in the job title are male or female.

The measure of traditionality of military occupations refers to the proportion female in the most comparable occupations in the civilian labor force. Because the occupational code for military occupations is unique to the armed forces, we constructed a crosswalk that links each of the Department of Defense (DoD) occupational codes to its counterpart in the census three-digit occupational scheme. For a large number of military occupations this involved taking weighted averages of the proportion female in a number of census occupational categories included in one DoD occupational code.[6] We index sex traditionality for women in the military with proportion female in the civilian sector because we believe that cultural definitions of job traditionality as defined by civilian society affect the initial job choice of a young woman who enlists in the military, the responses of the young woman and her co-workers to her performance on the job, and the way she perceives her eventual prospects for a civilian-sector job in that occupation.

[6] We received substantial assistance in this task from personnel in the Office of the Assistant Secretary of Defense for Manpower, Installations, and Logistics. The interested reader may obtain details on this crosswalk from the authors.

We have no evidence for the military of the pervasive sex segregation at the workplace level that exists in the civilian sector. Women in sex-atypical jobs in the military are not segregated by policy into all-female units. However, all military personnel have a primary military occupational specialty (MOS) for which they are trained. They may also have a secondary MOS. Some anecdotal evidence exists that women may be assigned to a unit on the basis of their primary MOS, say electronic-equipment repair, but actually act in the capacity of an administrative aide or assistant—a traditionally female role (Office of the Assistant Secretary of Defense 1981). Our data will not reflect these deviations of actual from assigned occupations.

We experimented with various functional forms of the traditionality variable, including a series of dummy variables and linear variables that measures proportion female and ranges from 0.0 to 1.0. We could find no form that fit better than any other; none of them fit very well. Because we hypothesize that traditionality affects job retention most when it becomes extreme, we created three categories of job traditionality: traditionally female occupation, mixed occupation, and traditionally male occupation.

The definitions of these variables differ for the military and civilian sectors because, when we use our linear measure of traditionality, we find a large difference between them in the distribution of workers. For example, 34% of women in the military, but only 3% of those in the civilian sector, hold jobs in which 10% or less of the national labor force is female. At the other end of the scale, 28% of the civilian workers, but only 3% of the military workers, hold jobs that are 90% or more female in the civilian work force.

In order to have enough cases in each of the categories of traditionality, we defined male and female occupations somewhat differently in the military and civilian sectors. For the military cases we defined an occupation as traditionally female if its civilian counterpart had a work force that was 75% or more female and as traditionally male if it had 10% or less female. For the civilian-sector cases, we defined occupations as traditionally female if their work force was 90% or more female and as traditionally male occupations if it had 25% or less female. We should point out that the findings of our analysis are relatively insensitive to these minor changes in definition of the variable.

We also include two measures of the sex composition of the work group for women only. These are whether the boss is a female and the percentage of the woman's co-workers who are female. The respondent was asked, "Now I would like to talk about the group of people who you think of as your co-workers—that is, people whom you see just about every day and with whom you have to work closely in order to do your job." This series of questions asked about the number of co-workers—how many

TABLE 1

NAMES AND DEFINITIONS OF VARIABLES, ANALYSIS OF JOB TURNOVER OF YOUNG WOMEN

Variable Name	Variable Definition
Turnover	Respondent no longer working for her 1979 employer as of 1980 (D)
Job traditionality:	
FEMALE OCC	Respondent's census three-digit occupation ≥ 90% female (civilian) (D)
	Respondent's census three-digit occupation ≥ 75% female (military) (D)
MALE OCC	Respondent's census three-digit occupation ≤ 25% female (civilian) (D)
	Respondent's census three-digit occupation ≤ 10% female (military) (D)
PERCENT FEMALE	Percentage female for respondent's occupation for civilian labor force
ARMY	Respondent's branch = army (omitted category)
NAVY	Respondent's branch = navy (D)
AIR FORCE	Respondent's branch = air force (D)
MARINES	Respondent's branch = Marine Corps (D)
Job mismatch:	
AGE	Respondent's age at 1979 interview
HS DIPLOMA	Respondent has high school diploma (D)
EDUCATION	Education (years completed)
KNOWLEDGE WORK	Knowledge of work (scale 0–9, 9 = high)
Job attractiveness:	
Job characteristics:	
LOG WAGE	Log of respondent's hourly wage (1979 $)
SHIFT	Work shift other than day (D)
TRAVEL TIME	Minutes from home to work
BENEFITS	Benefits (scale 0–3, 3 = paid vacation + life insurance + health insurance)
UNIONIZED	Wage set by collective bargaining (D)
MEDIAN WAGE	National median weekly wage in 1980 $ of female workers in respondent's three-digit occupation
LOG FIRM SIZE	Log of establishment size
MULTI SITE	Respondent's employer has establishments at >1 location (D)
LOG TENURE	Log of months in current job
TRAINING	Respondent received ≥4 weeks formal school training (D)
OJT	Respondent received ≥4 weeks on-the-job training (D)
FULL TIME	Respondent works full time (≥35 hours per week) (D)
CONTRACT ENDS	Enlistment contract ends between 1979 and 1980 interview (D)

Attitude toward job:	
DISSATISFIED	Respondent somewhat or very dissatisfied with current job/military branch (D)
JOB SIGNIFICANCE	Respondent perceives job as significant
EXTRINSIC REWARDS	Scale of respondent's perception of extrinsic rewards—e.g., pay—of current job (high score = higher rewards)
JOB HAZARDS	Scale of respondent's perception of hazards of current job (higher score = more hazards)
WORK GROUP	Scale of respondent's appraisals of co-workers and boss (higher score = more positive appraisals)
Attractiveness of alternatives:	
ED ASPIRE	Educational aspirations (years)
MOM WORK 14	Mother worked when respondent was age 14 (D)
WORK 35	Respondent wants to work at age 35 (D)
SEXROLE1	Sex-role attitudes 1: home/work conflict (high = traditional)
SEXROLE2	Sex-role attitudes 2: benefits to family from wife's work (high = pro work)
MARRIAGE	Respondent married between 1979 and 1980 interview (D)
BIRTH	Child born between 1979 and 1980 interview (D)
Demographic and social characteristics:	
MOM'S EDUCATION	Mother's education (years completed)
DAD'S EDUCATION	Father's education (years completed)
DAD WHITE COLLAR	Father's occupation = white collar (D)
DAD CRAFT	Father's occupation = craft (D)
NO MOM	No mother/stepmother present when respondent was age 14 (D)
NO DAD	No father/stepfather present when respondent was age 14 (D)
BLACK	Respondent black (D)
HISPANIC	Respondent Hispanic (D)
FOREIGN LANGUAGE	Foreign language spoken in home when respondent was child
SOUTH 14	Respondent lived in South at age 14 (D)
URBAN/RURAL 14	Urban/rural residence of respondent at age 14 (scale 1–3, 1 = town or city, 3 = farm)
CONTROL	Locus of control (scale 0–16, 16 = internal control)
ASSETS	Respondent's family assets (scale 0–3, 3 = car + home + savings)
FAMILY INCOME	Respondent's family income net of respondent's wages
Labor market characteristics:	
SMSA	Population concentration (scale 0–3, 0 = not in SMSA, 3 = SMSA, central city)
UNEMPLOY RATE	1979 unemployment rate (scale 1–6, low to high)

NOTE.—(D) = dummy variable.

TABLE 2

MEANS AND STANDARD DEVIATIONS FOR VARIABLES

	CIVILIAN SAMPLE (*N*)				MILITARY SAMPLE (*N*)			
	Women (778)		Men (832)		Women (309)		Men (544)	
VARIABLE	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Turnover	.549	.498	.569	.495	.210	.408	.222	.416
Job traditionality:								
FEMALE OCC	.308	.462	.014	.117	.278	.449	.092	.289
MALE OCC	.084	.277	.670	.470	.278	.449	.673	.470
PERCENT FEMALE	.718	.269	.218	.229	.462	.329	.176	.277
NAVY	...	...	...	...	.142	.350	.233	.423
AIR FORCE	...	...	...	...	.311	.463	.224	.417
MARINE	...	...	...	...	.065	.246	.101	.302
Job mismatch:								
Information:								
AGE	19.647	1.331	19.540	1.398	19.974	1.093	20.169	1.161
HS DIPLOMA	.774	.419	.627	.484	.939	.241	.770	.421
EDUCATION	11.835	1.446	11.295	1.561	12.013	.679	11.722	.923
KNOWLEDGE WORK	6.379	1.940	6.124	2.124	7.395	1.537	6.971	1.773
Job attractiveness:								
Job characteristics:								
LOG WAGE	1.180	.401	.867	1.578	1.153	.271	1.142	.254
SHIFT	.299	.458	.323	.468	.285	.452	.401	.490
TRAVEL TIME	16.769	13.050	19.717	20.255	11.528	2.715	9.667	9.837
BENEFITS	1.743	1.196	1.763	1.167	...	...	...	...
UNIONIZED	.121	.326	.249	.432	...	...	...	...
MEDIAN WAGE	175.281	38.233	260.787	62.175	...	...	...	...
LOG FIRM SIZE	3.505	1.757	3.262	1.824	...	...	...	...
MULTI SITE	.604	.489	.548	.500	...	...	...	...
LOG TENURE	2.036	1.015	2.097	1.037	2.920	.545	3.111	.539
TRAINING	...	...	...	...	.786	.411	.820	.385
OJT	...	...	...	...	.440	.497	.489	.500

FULL TIME	.815	.389	.891	.312	...	...	...	...
CONTRACT ENDS	...	...	...	...	.152	.360	.224	.417
Attitudes toward job:								
DISSATISFIED	.141	.349	.215	.411	.411	.492	.568	.496
JOB SIGNIFICANCE	3.287	1.259	3.271	1.251	3.524	1.199	3.334	1.298
EXTRINSIC REWARDS	.165	.628	.227	.686	.067	.602	.028	.672
JOB HAZARDS	.052	.661	.082	.678	.275	.791	.304	.670
WORK GROUPS	.134	.653	.245	.576	.188	.567	.097	.497
Attractiveness of school and home alternatives:								
ED ASPIRE	13.958	2.031	13.711	2.130	15.505	1.617	15.301	1.893
MOM WORK 14	.518	.500	.532	.499	.563	.497	.546	.498
WORK 35	.780	.414	...	...	.845	.363	...	...
SEXROLE1	.082	.990	.083	.986	− .328	.881	− .249	.920
SEXROLE2	− .011	.971	.076	.947	− .032	1.044	− .003	1.028
MARRIAGE	.107	.309	.093	.290	.194	.396	.077	.267
BIRTH	.053	.224	.066	.249	.078	.268	.074	.261
Demographic and social characteristics:								
MOM'S EDUCATION	10.890	2.735	10.593	2.991	11.629	2.346	11.546	2.369
DAD'S EDUCATION	10.806	3.592	10.370	3.606	11.476	2.958	11.709	3.230
DAD WHITE COLLAR	.220	.414	.190	.393	.285	.452	.226	.419
DAD CRAFT	.239	.427	.220	.414	.285	.452	.263	.441
NO MOM	.041	.199	.072	.259	.032	.177	.061	.239
NO DAD	.117	.322	.122	.327	.117	.321	.129	.335
BLACK	.171	.377	.218	.413	.184	.388	.208	.406
HISPANIC	.129	.335	.138	.345	.323	.177	.460	.210
FOREIGN LANGUAGE	.199	.400	.199	.399	.133	.340	.165	.372
SOUTH 14	.333	.472	.395	.489	.330	.471	.473	.336
URBAN/RURAL 14	.290	.574	1.273	.553	1.243	.518	1.285	.551
CONTROL	11.541	2.532	11.467	2.454	12.188	2.461	11.732	2.531
ASSETS	1.339	.836	1.290	.868	1.478	.627	1.392	.630
FAMILY INCOME	2,370.608	4,537.634	80.400	1,598.983	1,238.424	2,924.053	70.382	2,168.538
Labor market characteristics:								
SMSA	1.305	1.068	1.134	1.080	...	...	...	...
UNEMPLOY RATE	2.504	.716	2.512	.766	...	...	...	...

were female, how many Hispanic, and how many black. It is clear from this question that the term "co-worker" does not necessarily refer to those in the same job title or occupation and so probably includes both superiors and subordinates, as well as those in other occupations with whom the respondent works. Thus, it is only a rough measure of the extent of sex segregation that the person faces in the workplace.

Our exploration of job turnover of young men parallels the analysis for young women. The constraints on the sample, variable definitions, and estimation techniques all match exactly for the two sexes. The model for males includes all variables included for females, with the exceptions of preferences for work at age 35, which is not available for men, and sex composition of the work group.

Our analysis treats missing data in two ways. We excluded from the analysis any case with missing information on the dependent variable or with incomplete responses to any of the questions that the respondent should have answered. However, where incomplete information existed because of the questionnaire skip patterns (e.g., no data on father's education for those with no father in the household), we set that variable equal to a predetermined missing value code and included a dummy variable, coded one, to identify observations with that missing value. This strategy allowed us to retain in the sample individuals for whom we were missing data on variables that applied to less than the total sample—for example, no data on father's occupation because the respondent never knew the father, or no data on mother's occupation because the mother never worked.

As the dependent variable in this analysis receives codes of only zero or one, we estimated all equations using logistic regression, estimated with maximum-likelihood techniques appropriate for the analysis of dichotomous dependent variables (Goodman 1976).[7] To make the results easier to interpret, we transform the estimates of log odds coefficients by multiplying each by $(\bar{p})(1 - \bar{p})$, where $\bar{p}$ is the mean of the dependent variable (see Hanushek and Jackson 1977). These transformed coefficients can be

[7] For individual i with values on the independent variables denoted by the vector X_i, the probability that $Y_i = 1$ (the person left the 1979 job) is

$$P_i = \frac{1}{1 + e^{-X_i\beta}}$$

and the probability that $Y_i = 0$ (the person remained with the 1979 employer) is

$$1 - P_i = \frac{e^{-X_i\beta}}{1 + e^{-X_i\beta}} \frac{1}{1 + e^{X_i\beta}},$$

where P_i and $1 - P_i$ are hypothesized to be related to X_i and β through the logistic function (Hanushek and Jackson 1977).

interpreted in the same way as regression coefficients—they show the estimated effect of a one-unit change in an independent variable on the probability of job turnover, evaluated at the sample mean.

RESULTS

Both the young women and young men in our sample exhibit a very high rate of job turnover, as shown by the means for this variable in table 2. Examination of the destinations of the respondents shows some differences by sex; 26% of the women and 20% of the men were not employed at the 1980 survey date, with more males unemployed, more females keeping house, and about the same proportions in school and unable to work.

Table 2 shows much lower rates of job turnover for both sexes for those on active military duty in 1979 than for those working in the civilian sector. Just over 20% left the service between 1979 and 1980, less than half as many as left their civilian employer over the same period. We note the striking similarity between the sexes in turnover rates in both sectors. This similarity may be due to the youth of the sample, as data for the labor force as a whole have historically shown higher turnover rates for women than for men (Haber et al. 1983).

Comparison of males and females in table 2 shows substantial differences in job characteristics for the two sexes. We discuss only the most important here, but draw the others to the reader's attention. As we would expect, sex segregation of occupations is pervasive in both the civilian and military sectors. Sex segregation in the military is extreme for typically male occupations—two-thirds of all men on active duty are in occupations that are 10% or less female in their civilian counterparts. Much of this results from the large proportion of enlisted male military personnel in combat-arms occupations that are closed to women. However, a much larger proportion of men in the military than in civilian jobs have occupations that in the civilian labor force are predominantly female (9% vs. 1%). We must point out that the evidence of substantial sex segregation that these measures present does not necessarily result from our definition of traditionality. If young men were entering occupations randomly, without regard for their sex composition, then average percentage female would be around 40%, the proportion that is female in the labor force as a whole.

Table 3 presents logit coefficients for the most detailed models of job turnover for both the military and civilian sectors for women and men. We organize our discussion of the results by first presenting those for women—the group of primary interest—and then comparing these results with those for men. First, note that our hypothesis that job turnover

of women is negatively related to the sex typicality of their occupations is not supported by our findings; the proportion female in the occupation in the national labor force has no effect on women's job turnover. The coefficients for FEMALE OCC and MALE OCC for the civilian sector both show negative signs and do not approach statistical significance. For the military the coefficients show the signs hypothesized for women—a negative effect on turnover of incumbency in a traditionally female job and a positive effect of being in a traditionally male job. However, in both cases the effect is quite small. An analysis of sex differences in workers' quitting (Viscusi 1980) found no effect of percentage female in the individual's two-digit industry on quits for either sex, which parallels our findings on detailed occupation. We also find no effect of service in the Marine Corps on turnover. In fact, no branch of the service appears better or worse than any other in its retention of women.

For men, we see no effect of either incumbency in a traditionally female (FEMALE OCC) or traditionally male (MALE OCC) occupation in the military, no effect of MALE OCC in the civilian sector, and a counterintuitive *negative* effect of sex atypicality on male turnover in civilian jobs. We expected gender nontraditionality to increase turnover, but we find for males in civilian jobs that it reduces job change. The coefficient for FEMALE OCC in the civilian sector means that those relatively few men in occupations in which 90% or more of the national labor force is female have rates of turnover that are 47 percentage points lower than those in mixed occupations (the reference category).

To determine the robustness of our finding on the effect of gender traditionality of the occupation on women's turnover, we explored various specifications of the model and of the measure of occupational typicality by sex. First, to ensure that other independent variables correlated with some aspects of job traditionality (e.g., shift work or full-time vs. part-time employment) were not capturing much of the variation in the measure of traditionality, we reestimated the model after reducing the number of independent variables to those of central theoretical importance.[8] Our results remained unaffected.

[8] These simplified models included AGE, BLACK, HISPANIC, FOREIGN LANGUAGE, combined measures of parental education, MOM WORK 14, HS DIPLOMA, EDUCATION, KNOWLEDGE WORK, ASSETS, FAMILY INCOME, ED ASPIRE, CONTROL, WORK 35, SEXROLE1 and SEXROLE2, BIRTH, MARRIAGE, LOG TENURE, LOG WAGE, FEMALE OCC, MALE OCC, DISSATISFIED, EXTRINSIC REWARDS, JOB HAZARDS, WORK GROUP, BENEFITS, UNIONIZED, LOG FIRM SIZE, and MEDIAN WAGE. The models of military turnover included, in addition, all measures of characteristics of military jobs. We thus reduced the number of variables in the models by 15 (including three indicators of missing values).

We also explored a linear measure of proportion female in the occupation with this simplified model and with the full model. We found no effect in the civilian sector but a significant negative effect of proportion female (logit coefficient = -0.2628, $t = -1.9$) on the probability of turnover in the military. This result implies that moving a woman from a military occupation that, in the civilian counterpart occupation, is 50% female to one that is 60% female would lower her probability of leaving the service over a one-year period by three percentage points. Larger or smaller changes in the traditionality of the occupation would have proportionate effects on the chances of turnover. This significant effect of the linear measure, combined with our finding of no effect for being in either predominantly male or predominantly female occupations, suggests that changes toward a higher proportion female *within mixed occupations* reduces attrition of women from the military. Plots of the relationship between turnover and proportion female in the military suggest that small and unusual categories do not account for our results.

Our results for men also remain when we replace the two measures of gender typicality, FEMALE OCC and MALE OCC, with a linear measure of percentage female in the occupation. In fact, for men in the civilian sector, percentage female shows stronger, more statistically significant negative effects on turnover than the indicator of being in a typically female occupation (logit coefficient = $-.2831$, $t = -2.83$). This result implies that moving a man from a civilian occupation with 50% female in the national labor force to one with 60% would lower the probability of turnover by slightly less than three percentage points. This finding closely replicates that for women in the military and is even in the same direction.

We speculate that increasing sex atypicality of the current occupation reduces turnover for men, especially for those at the predominantly female end of the distribution of occupational gender composition, because males in such traditionally female occupations as those of secretary or nurse have, or think they have, greatly improved probability of promotion and advancement as a direct result of their uniqueness and higher status than their co-workers. Schreiber (1981) studied male and female workers in sex-typical and sex-atypical occupations in a large bureaucratic organization. She reports that almost everyone interviewed, especially the men in women's jobs, agreed that men take traditionally female jobs as a stepping-stone to higher positions within the organization. These views were not based on actual mobility, however, as very few men moved from clerical slots to management over the period that Schreiber studied.

We find no support for the reasoning that work-group composition affects women's job turnover. Results not presented here show that, al-

TABLE 3

LOGIT COEFFICIENTS FROM MODELS OF JOB TURNOVER OF YOUNG WOMEN AND YOUNG MEN

	CIVILIAN SAMPLE (N)				MILITARY SAMPLE (N)			
	Women (778)		Men (832)		Women (309)		Men (544)	
VARIABLE	Logit Coefficient	T-Ratio	Logit Coefficient	T-Ratio	Logit Coefficient	T-Ratio	Logit Coefficient	T-Ratio
Job traditionality:								
FEMALE OCC	−.0780	−1.59	−.4757	−2.07	−.0993	−1.06	−.0701	−.64
MALE OCC	−.0605	−.73	.0538	1.17	.0123	.13	−.1017	−1.47
NAVY	...	...	...	...	−.0974	−.81	.0032	.04
AIR FORCE	...	...	...	...	−.0631	−.64	−.0216	−.25
MARINES	...	...	...	...	.1163	.12	.0619	.64
Job mismatch:								
Information:								
AGE	−.0514	−2.70	−.0237	−1.33	−.0549	−1.25	.0215	.66
HS DIPLOMA	−.1374	−1.86	−.0772	−1.14	−.0037	−.02	−.0187	−.20
EDUCATION	−.0228	−.87	−.0486	−2.05	.0574	.90	.0434	.97
KNOWLEDGE WORK	−.0024	−.18	−.0022	−.19	−.0214	−.80	−.0188	−1.06
Job attractiveness:								
Job characteristics:								
LOG WAGE	.0018	.03	−.0926	−1.70	.3324	1.80	−.3649	−2.35
SHIFT	−.0676	−1.35	−.0758	−1.65	−.0086	−.11	.0940	1.69
TRAVEL TIME	.0044	2.62	.0003	.23	.0012	.54	−.0056	−1.81
BENEFITS	−.0905	−4.28	−.0256	−1.26	...	...	...	...
UNIONIZED	−.0877	−1.30	.0248	.47	...	...	...	...
MEDIAN WAGE	−.0010	−1.47	−.0001	−.24	...	...	...	...
LOG FIRM SIZE	−.0022	−.91	.0013	.55	...	...	...	...
MULTI SITE	.0013	1.37	−.0006	−.61	...	...	...	...
LOG TENURE	−.1320	−5.61	−.1379	−6.35	−.0820	−.91	−.1119	−1.42
TRAINING	...	...	...	...	−.1501	−1.77	.0117	.17
OJT	...	...	...	...	−.0377	−.48	.0673	1.12

FULL TIME	−.0118	−.19	−.1160	−1.56				
CONTRACT ENDS					.7779	6.35	.8373	10.00
Attitudes toward job:								
DISSATISFIED	.1169	1.74	.1718	2.90	.0512	.60	.1070	1.69
JOB SIGNIFICANCE	−.0215	−1.12	−.0301	−1.69	−.0176	−.51	−.0548	−2.41
EXTRINSIC REWARDS	.0706	−1.68	.0697	1.86	.0776	.98	.0436	.99
JOB HAZARDS	.0546	1.63	−.0393	−1.16	−.0019	−.04	−.0251	−.57
WORK GROUP	−.0246	−.67	−.0513	−1.23			−.0884	−1.72
Attractiveness of school and home alternatives:								
ED ASPIRE	.0302	2.40	.0324	2.80	.0022	.09	.0031	.20
MOM WORK 14	.0305	.69	.0694	1.62	−.0191	−.25	−.0207	−.37
WORK 35	.0418	.79			.1553	1.32		
SEXROLE1	−.0059	−.25	.0179	.82	.0742	1.73	−.0343	−1.10
SEXROLE2	−.0101	−.44	−.0431	−1.94	−.0230	−.66	−.0275	.98
MARRIAGE	.1885	2.58	−.0870	−1.22	.1553	1.83	−.1267	−1.12
BIRTH	−.1260	1.20	−.0668	−.84	.1721	1.34	.1983	1.97
Demographic and social characteristics:								
MOM'S EDUCATION	.0094	.90	−.0102	−1.10	−.0010	−.06	.0247	1.78
DAD'S EDUCATION	−.0015	−.18	.0027	.36	−.0244	−1.46	−.0028	−.24
DAD WHITE COLLAR	−.0036	−.06	.0896	1.46	−.0687	−.63	−.0420	−.49
DAD CRAFT	.0263	.46	.0155	.28	.0595	.64	−.1035	−1.40
BLACK	−.0867	−1.26	−.0477	−.77	−.3305	−2.37	.0316	.40
HISPANIC	−.0402	.42	.0825	.91	.0261	.14	.0928	.66
FOREIGN LANGUAGE	−.0774	−1.03	−.1015	−1.38	.2753	2.66	.0510	.68
SOUTH 14	.0291	.57	.0025	.05	.1564	1.86	.0128	.21
URBAN/RURAL 14	−.0310	−.79	.0126	.32	−.0573	−.84	−.0247	−.47
CONTROL	−.0005	−.06	.0107	1.25	.0113	.71	.0103	.89
ASSETS	−.0346	−1.13	−.0575	−1.94	−.0342	−.51	−.0554	−1.18
FAMILY INCOME	.0000	1.08	.0000	−1.90	.0000	.36	.0000	.27
Labor market characteristics:								
SMSA	−.0228	−1.03	.0101	.46				
UNEMPLOY RATE	−.0155	−.49	−.0059	−.21				

though, of the women studied, 43% have women bosses and 72% of their co-workers are female, women are not more or less likely to leave their jobs because of the sex of their bosses or the sex composition of their work groups.[9] In addition, we included for women an interaction of proportion female in the work group and being employed in a traditionally male occupation. This interaction was not significant, although we suspect that little variation exists in the proportion of the work group that is female for women in traditionally male jobs. This lack of variation, if it exists, could result in the null findings here.

One of our major categories of control variables measures job attractiveness, which, we reason, should reduce turnover. We hold constant the characteristics of the job that affect its appeal and the measures of the individual's attitude toward the job. The results in table 3 show general support for a negative effect of job attraction on turnover; those in jobs with more benefits, higher long-run wage prospects, union representation, lower perceived hazards, short travel time to work, and higher perceived extrinsic rewards leave their employers at lower rates than do those in jobs without these features, although not all these effects reach statistical significance. We find that for civilian workers chances of turnover decrease dramatically with increasing tenure with that employer. Job tenure reflects satisfaction with the job to that point and also the firm-specific knowledge and skills that the worker has acquired.

Our analysis of women showed that those in the military who had received substantial formal training for their occupation were less likely to leave than were those without this training, although on-the-job training did not further increase retention. For males, neither type of training affects leaving the military, once we take other factors into account.

Our other indicators of how attractive the job is to the individual measure attitudes toward its various aspects, including those of the work group, general satisfaction with the job or enlistment, extrinsic rewards, job hazards, and the significance of the job. All these variables behave as

[9] The NLS included measures of work-group composition in 1980 only. Because we think these measures have potential for important effects on the appeal of the work environment and thereby on job turnover, we wanted to include them in our analysis. To do this, we estimated our model of turnover for the period 1980–81, including all variables in the model used for 1979–80, plus the measures of work-group composition. For brevity, we report in the text table only the results for the variables unique to this year. The measures of work-group characteristics available also allowed us to perform preliminary tests of our hypotheses about the effect of the racial and ethnic composition of the work group. To do this, we included in the model described above measures of the number of black co-workers and the number of Hispanic coworkers in the woman's work group, and whether the boss was black. We found no effect of any of these factors on job turnover. We also tested the effect of racial and ethnic composition of work group for black and Hispanic women and found no effect.

expected; the more attractive the job, the less likely the person is to leave it during the year, although not all the coefficients reach statistical significance. We note, however, that none of these measures affect attrition for men and women in the military (with the exception of work group for males). These aspects of their jobs may be less salient to military personnel than to civilian employees because fewer of them see the services as a career. In addition, acting on job preferences is more difficult for those who have signed an enlistment contract than it is for those with a civilian employer.

Our turnover model also includes a set of measures of the attraction of activities that might compete with employment—schooling and full-time work in the home for women and educational advancement for men. With educational attainment controlled for, we find that the educational aspirations of the young woman or young man positively affect job turnover for those with civilian employers but have no effect in the military. One reason that young men and women enter the military is for its educational opportunities; the military has long provided training for those in the service and veterans' educational benefits afterward, which open an avenue for upward mobility to those with high aspirations but few family resources. Thus, having high educational aspirations does not cause young people to leave the military—precisely because it was one reason for their enlisting.

We also control for the occurrence of life-cycle transitions that increase the attractiveness of work in the home—marriage or a birth. A marriage during the year greatly increases turnover for women, but a birth has no effect net of marriage. In the military only, the coefficient for a recent birth is larger than the effect of marriage, and it is positive, but not significant. Our results show no effect of marriage or a birth during the year for civilian males, or for marriage for enlisted men. But a birth significantly increases the chances that the new father will leave the military.

Our other measures of the attractiveness of working in the home reflect the young woman's attitudes and her role models, including whether her mother was employed, her sex-role attitudes, and her long-run plans for work. We find no effect of any of these variables for women employed in the civilian sector. But for women in the military, holding traditional attitudes toward sex roles significantly increases the likelihood of leaving the military. This result is consistent with analysis of 14–17-year-old girls' enlistment and occupational expectations. Those who expected to enlist were more likely to plan a traditionally female occupation. We suggest that some share of women enlistees have traditional life plans that ultimately do not fit military careers. They use the military to mark time until

marriage or to obtain training in traditionally female occupations that they can transfer to the civilian sector.

SUMMARY AND CONCLUSIONS

Summary

We find little support for the hypothesis that being in a job traditional for one's sex affects turnover, net of the effect of the individual's demographic and social characteristics and other dimensions of her job. The military constitutes a mild exception; among women on active duty in the armed forces we found a weak negative effect of job traditionality on turnover over a one-year period. Women in traditionally female jobs were slightly less likely to leave the military over the one-year period we examine. Our analyses of various alternative measures of proportion female in the occupation suggest that the negative impact of occupational typicality on women's job turnover, to the extent that it exists, occurs mostly within occupations that have more than 25% and less than 90% females in the national labor force. Women in the various branches of the services show the same turnover probabilities.

For males, we find that those civilian jobs in occupations with very high proportions of females have *lower* turnover rates than those in mixed or sex-typical occupations. Traditionally female jobs in this category include those of secretary, nurse, elementary school teacher, bank teller, bookkeeper, and receptionist. We speculate that the relatively few men in these stereotypically female occupations have, or think they have, substantially improved promotion and job opportunities because of their uniqueness and higher status than their co-workers. There are no effects of the proportion female in the civilian counterparts of their occupations on the chances that men leave the military within the year.

Our controls for mismatch between the characteristics of the individual and the demands of the job generally show the expected effects, as do those for job attractiveness. The attractiveness of two competing activities, schooling and full-time work in the home, increases turnover for women. Women and men in civilian—but not military—jobs who have relatively high educational aspirations are also significantly more likely to leave their employer than are others, presumably to return to school.

We must point out again that the nature of the data used in this analysis restricts the generalizability of our findings. We focus here on the early stages of the process through which young adults enter careers; our analysis cannot speak to issues of career choice or advancement for those older than their early twenties. Our decision to include only postschool occupational choices allows us to focus on job decisions with substantial

long-run implications but means that our results apply primarily to young adults who do not go straight from high school to four years of college (see Mare, Winship, and Kubitschek 1984 for analysis of young men's transitions from school to military service or employment). Thus, our sample allows us to discuss the job turnover of young adults who have less than a college degree.

Our focus on the occupational choice and retention decisions of young adults is appropriate for several reasons. First, entry into a first occupation after school influences later career achievements (Ornstein 1976). Second, more job switching takes place early in careers, when individuals are trying to make a match between their skills and interests and those of an occupation, than later, when people have acquired substantial occupation-specific capital. Thus, we focus on a period of occupational turbulence during which important career decisions are taking place.

Conclusions

At the beginning of this paper we outlined a series of theoretical and policy issues that motivated our study of the effects of occupational sex typicality on young women's retention in jobs. These include the consequences of occupational segregation for the career progression, earnings, and work experiences of women; women's access to nontraditional jobs in the military, with the training, pay, later educational opportunities, pensions, and career options associated with that access; and questions about the costs to employers of hiring and training women in sex-atypical occupations, as affected by women's willingness and ability to remain in them. Our interest in the effects of work-group composition followed from many of the same concerns.

Our analyses have three particularly important policy implications, especially for young women. First, the military services, which historically confer important educational, economic, and political benefits on the less enfranchised groups who serve in them, have expressed concern about high turnover rates of women enlistees. Our analysis explicitly compares male and female enlistees. It also compares turnover for women in the military and in civilian jobs. We find that women enlistees in the armed forces have much lower exit rates than do their occupational counterparts in civilian jobs. In a year's time, more than one of every two women exited from civilian jobs. For the same time period, one of every five members of the military exited, most of these at the conclusion of their first-term contract. These same patterns obtain for male workers in the military and civilian sectors. (Those whose contracts ended between the 1979 and 1980 interviews were 78–83 percentage points more likely to exit than those whose contracts ended after the 1980 interview.) Clearly,

the military is relatively successful in controlling turnover of women in this age group through its selection, training, service contract, and other human-resource policies.

Second, the lack of effect of job traditionality on employee retention for young women has major implications for the gender desegregation of occupations in the civilian sector, especially in industries whose occupational structures have high proportions of traditionally male occupations. For women to penetrate such industries significantly, they have to be pervasively employed in traditionally male occupations. Our results do not support the exclusion of young women from training for or employment in traditionally male occupations on grounds of turnover rates greater than those observed for women in traditionally female occupations. We must note, however, that the characteristics and experiences of women who enter jobs that, currently, are held predominantly by men may change in the future if more women enter these occupations.

Third, our findings for the military do not allow us to pinpoint which of the processes suggested earlier accounts for the slightly higher turnover of enlisted women in occupations that are mixed by sex in the civilian labor force. The lack of similar effects for the civilian sector point to something unique to the military, perhaps lack of the pay differentials between traditionally male and female jobs that exist in the civilian market or perhaps the pressure brought to bear on female recruits to accept assignments to mixed and nontraditional occupations of which they have relatively little knowledge and for which they have relatively little taste. We must keep in mind the difficulty of leaving the services before the end of the enlistment contract (controlled in our analyses) and what that implies about the strength of the effect that we observe.

Young women in the labor force are in the midst of a crucial process of getting training and becoming established in careers. As employment becomes the predominant activity for women during most of their adult lives, their success in the labor market becomes more important for life satisfaction, economic well-being, and even psychological functioning. Civilian experience suggests two possible explanations for the lack of any effect of job traditionality on turnover: (1) those young women who successfully gain entry into mixed or traditionally male occupations do not face substantially more mismatch between their own characteristics and those of the jobs or more co-worker hostility, problems with inadequate job performance, or dissatisfaction with the work than do those in traditionally female occupations; or, (2) encountering these mismatches or other problems does not aggravate job turnover. The military lesson suggests that coercing some women into mixed or traditionally male occupations may raise turnover, but even in this case the differences are modest, indicating that most women like the job as well as they would

like another, more sex-typical job or at least well enough to stay in it for their tour of duty.

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